



UAS and SmallSat Weekly News

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16May20

Boeing Loyal Wingman: A combat drone that leans hard on AI Andrew Altman May 15, 2020



The Loyal Wingman is designed to fly alongside existing platforms and use artificial intelligence to conduct teaming missions.

The release of the long-awaited [Top Gun sequel](#) has been [delayed](#) due to the [coronavirus](#) pandemic, crushing the hopes of seeing a renewed Tom Cruise-Val Kilmer bromance anytime soon. But luckily, at least one wingman is still rolling.



Earlier this month, Boeing Australia delivered the first of three prototype drones to the Royal Australian Air Force. The aircraft, nicknamed Loyal Wingman, is part of Boeing's [Aircraft Teaming System](#) designed to lean heavily on artificial intelligence.

This is Boeing's largest military investment outside of the US. The drone was engineered using what Boeing calls a "digital twin," which is essentially an advanced 3D scan of the aircraft that can be used for testing. Watch the video to see how the process works.



The drone was manufactured with Boeing's largest-ever resin-infused single composite piece. **Watch this:** See Boeing Australia's first prototype military drone,... 3:32 <https://www.cnet.com/news/boeing-loyal-wingman-a-combat-drone-and-historic-aircraft/>

Everdrone delivers defibrillators by drone in Sweden Josh Spires May. 15th 2020



(about 3.7 miles).

[Everdrone](#) announced it will begin to use [autonomous drones](#) in Sweden to deliver automated external defibrillators (AEDs) to the scenes of cardiac arrests. The drones will serve over 80,000 residents in the city of Gothenburg. They can be in the air within minutes and have a flight radius of 6 km



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The drones will be part of a clinical study taking place in collaboration with Sweden's emergency call center, SOS Alarm, and the Center for Resuscitation Science at Karolinska Institutet. Past studies show low survival rates of patients when they aren't able to be reached quickly. KI will report the results later this year in hopes of expanding the operation to other areas in Sweden and Europe by 2021.

Once an emergency call comes in, dispatchers send both a drone and an ambulance. The drone will usually arrive before the ambulance. It lowers the defibrillator with a winch from a height of 30 meters. AEDs are designed to be used by laypeople. And the hope is that someone on site can use the device if paramedics are delayed. Speed is crucial, as survival rates shoot up to 70% if a patient receives help within the first few minutes.

Everdrone's drone is equipped with an Intel-based RealSense obstacle avoidance system and intelligent route planning to improve efficiency. A parachute system ensures the drone will land safely in the event of a mishap. <https://dronedj.com/2020/05/15/everdrone-delivers-defibrillators-by-drone-to-swedish-residents/#more-28816>

XAG Deploys Drones to Seed Burned Land PRESS 2020-05-14



In a collective effort to restore Australia from wildfire devastation, [XAG](#) has joined the **first-ever** post-fire drone seeding operation on Lake Cobrico, Victoria, to re-establish native vegetation within a fire-ravaged peat swamp.

This April, XAG sent 3 sets of its P Series drones, equipped with JetSeed granule spreading system, to distribute native seeds directly on Lake Cobrico. Within only two days, approximately 40 hectares of burned land was replenished with new plants, using a blend of 12 different seeds.

Lake Cobrico is a swamp wildlife reserve located near Warrnambool in Southwest Victoria. Part of the peatland was severely damaged during the 2018 St Patrick's Day Fire, with the vegetation and deeper soil layers left in ruins. In areas of high burn severity, the ecosystem itself might be unable to regenerate naturally and require direct seeding for fire recovery. Re-establishment of native vegetation can slow down erosion and sedimentation and suppress invasive weeds after a wildfire.

During the operation, the drones followed the pre-set flight route, while harnessing high-speed airflows to project seeds from 2-3 meters above the ground. Also, seeding rates could be



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precisely controlled and adjusted in real time to ensure the proper amount of seed was distributed evenly into the targeted bare land. This has not only limited the exposure of staffs and ground vehicles to rugged terrain but also avoided using too much or too little seed.

https://www.uavexpertnews.com/2020/05/xag-deploys-drones-to-seed-burned-land/?utm_source=Master&utm_campaign=c840025b03-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-c840025b03-89168288

Wingtra drones used to predict Alaskan flash floods NEWS UNITED STATES SAM LEWIS MAY 15, 2020



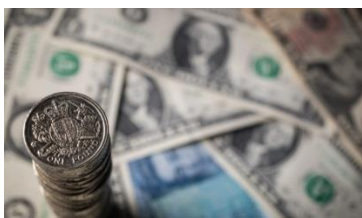
The researchers track rising and falling ice and water levels in the Suicide Basin glacial lake in a bid to protect nearby communities from flooding damage.

“The main issue is that it’s ice-covered so we can’t really see the water as it fills up the basin on a seasonal basis,” explained University of Alaska research professor Gabriel Wolken.

The team uses orthophoto and digital elevation models from a WingtraOne drone to assess changes to ice levels atop Suicide Basin. This data helps them track the water level and interactions with the Mendenhall glacier.

“We have to have something that can fly for a long time, fly high enough to handle the complex terrain that we’re dealing with and provide the resolution that’s required for the analyses that we’re doing. The WingtraOne covers a large area efficiently and provides high quality data for visualization and location accuracy.” https://www.commercialdroneprofessional.com/wingtra-drones-used-to-predict-alaskan-flash-floods/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329545-Commercial+Drone+Professional+DNA+-+2020-05-15

Military drone sector set to top \$20bn by 2026 BUSINESS FINANCIAL MILITARY RESEARCH SAM LEWIS MAY 15, 2020



Fortune Business Insights forecasting a CAGR of 12.4% could take the industry to \$21.76billion. “Military drones are used for intelligence, surveillance, reconnaissance and target acquisition during battlefield operations.”



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"Military across the globe are procuring drones to support their combat missions and assessing real-time battle damage. Technologies such as artificial intelligence, 3D printing, multi-sensor data fusion for UAV navigation, cloud computing services for military UAVs and advancements in payloads are expected to support market growth during the forecast period. Product innovations such as spy drone, mid-air refueling and anti-UAV defense systems are major upcoming trends." https://www.commercialdroneprofessional.com/military-drone-sector-set-to-top-20bn-by-2026-says-new-report/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329545-Commercial+Drone+Professional+DNA+-+2020-05-15

18May20

AeroVironment Gets \$146M Army Miniature Aerial Munition Supply Contract

Nichols Martin May 15, 2020 Contract Awards, News



[AeroVironment](#) (Nasdaq: AVAV) has landed a potential three-year, \$146M contract to provide **loitering** missile systems designed to help military users reach targets for operations **beyond line of sight**.

The company [said Thursday](#) it will start to deliver the Switchblade miniature aerial missiles to the service branch beginning in September under the sole-source contract with a \$75.9M base value awarded by the Army Tactical Aviation and Ground Munitions project office due to "joint **urgent** operational need." The contract includes two option years that would extend work through April 2023.

Switchblade can be deployed from a six-pack launch platform and seeks to help warfighters hit a target up to **six miles** from a fixed or a mobile location.

Brett Hush, senior product line general manager of tactical missile systems at AeroVironment, said the system has helped the branch perform force protection and precision strike missions. He added that the company will continue to update Switchblade's features to support requirements of U.S. military and allied customers.

<https://www.govconwire.com/2020/05/aerovironment-gets-146m-army-miniature-aerial-munition-supply-contract/>



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Air Force Seeks Proposals for Potential \$400M Skyborg UAV Prototyping Program

Jane Edwards May 18, 2020 Contract Awards, News



A notice [posted Friday](#) says the Skyborg Prototyping, Experimentation and Autonomy Development program aims to develop low-cost UAVs designed to augment unmanned systems and is a multiple-award, indefinite-delivery/indefinite-quantity contract with an ordering period of five years and a six-year

performance period.

Skyborg is a Vanguard program of the Air Force that seeks to facilitate manned-unmanned teaming and expeditionary operations. The contract will be used to build the **first** integrated Skyborg platform that can enable software updates and incorporate new technologies.

Interested vendors should state in their proposals their capability to integrate open and autonomous platforms and build prototypes to satisfy operational mission sets as well as their analytical design capabilities, software practices and experimental testing and manufacturing capabilities. The service branch will accept proposals through June 15 and expects to award the contract on July 8. <https://www.govconwire.com/2020/05/air-force-seeks-proposals-for-potential-400m-skyborg-uav-prototyping-program/>

Minnesota Man Arrested in Drone Shooting

Jason Reagan May 16, 2020



The Watonwan County Sheriff's Department charged Travis Duane Winters, 34, of Butterfield, Minn., with criminal damage to property and reckless discharge of a weapon within city limits.

An unidentified drone pilot alleged Winters used a shotgun to down the **\$1,900 drone** as it flew over poultry distributors [Butterfield Foods](#). The pilot said he had been filming the alleged slaughter of chickens by employees due to possible COVID-19 infections. Winters admitted he shot the drone down with a shotgun.

Last year, a Long Island man allegedly [shot down](#) a [DJI Mavic 2 Zoom](#) flying near his property. In 2015, a Kentucky man [shot](#) a drone as it flew over his property. Police charged William Meredith with criminal mischief, but a local judge dismissed the charges in 2017, stating (incorrectly) that the drone flight represented "an invasion of their privacy" and that Meredith "had the right to shoot" the drone.



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Aviation attorney [Jacob Tewes](#) tells DroneLife: "Shooting down a drone is a federal crime because drones are aircraft under federal law. It would also be illegal under general criminal or civil laws in most states." <https://dronelife.com/2020/05/16/drone-shooting-in-minnesota/>

Orthophoto Survey Drones Help Predict Flash Flooding Jason Reagan May 15, 2020



A research team led by Gabriel Wolken of the [University of Alaska Fairbank's Climate Adaptation Science Center](#) has been measuring rising and falling ice and water levels in Suicide Basin glacial lake just outside Juneau.

By working to visualize and predict the glacial lake's seasonal flux, the team hopes to learn how the water interacts with the [Mendenhall Glacier](#), which sits next to the basin and holds it together.

"Mendenhall was once connected to Suicide Glacier before rising temperatures separated them, resulting in Suicide Basin," a spokesperson said. "When basin waters rise to a point, Mendenhall Glacier can't hold them anymore and the entire basin drains, immediately causing flash floods. This flooding potentially threatens a bridge that is connected to the road system," Wolken said. "And this is the only road that would connect residents on the north side to hospitals and other vital facilities. The main issue is that it's ice covered so we can't really see the water as it fills up the basin on a seasonal basis".

The team relies on [orthophoto survey drones](#) by Swiss manufacturer [Wingtra](#) to gather digital elevation models and imagery. The data help researchers assess changes to ice levels atop Suicide Basin. <https://dronelife.com/2020/05/15/orthophoto-survey-drones-help-predict-flash-flooding/>

Autel Robotics patent win could ban DJI drones from sale in the US [Josh Spires](#) May. 18th 2020

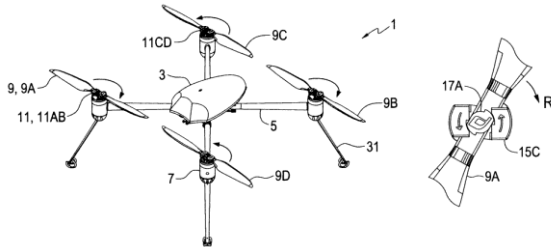


DJI has created various drones, including its Mavic series that have allegedly infringed upon Autel Robotics [US Patent No. 9, 260,184](#). The patent looks to be for the mechanism used to lock the propellers to the motors. The patent states the clockwise blade is only engageable with the clockwise mechanism on the motor, and the counterclockwise blade is only engageable with the counter-clockwise mechanism. The patent also covers foldable arms used to prop the drone off the ground.



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According to [Section 337 of the Tariff Act of 1930](#) states that infringing on a US patent is an unlawful practice when importing products into the United States.



The chief administrative law judge has recommended that a cease and desist order be given to DJI, which would prevent the Mavic Pro, Mavic Pro Platinum, Mavic 2 Pro, Mavic 2 Zoom, Mavic Air, and Spark from being imported and sold within the United States. Autel has also filed

a petition to get the Phantom and Inspire series to be included in the exclusion. If the exclusion is upheld, DJI products could be removed from the United States market as early as **July**.

DJI would either have to come to an agreement with Autel Robotics to continue to use the mechanism or DJI will have to come up with a different enough mechanism to continue selling its drones. We aren't aware if this will affect the [Mavic Air 2](#) and Matrice 300, both released after the ruling. This could likely affect the [Mavic 3 launch](#) by forcing DJI to come up with a different set of solutions quickly. <https://dronedji.com/2020/05/18/autel-robotics-could-ban-dji-drones-from-sale-us/#more-28863>

19May20

Search and Rescue Drones: Finding a Cell Phone Signal, and a Missing Person

Miriam McNabb May 18, 2020



Image Provided by the Centum

Lifeseeker is an airborne system that can locate mobile phones, even without network coverage. The new technology marries cell phone signals to search and rescue missions using either helicopters or a smaller version appropriate for drones. The solution turns the mobile phone into a beacon capable of leading rescue teams to its location.

The smaller version for drones means that search and rescue operations may take place not only more cheaply but also in conditions during which helicopters would be grounded: in low visibility, adverse weather conditions and at night. [Lifeseeker](#) is produced by Spanish company [Centum](#) and marketed in Asia by [Drone Solutions Services](#), a privately held company in Singapore, as well as other companies worldwide.



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"The product locates missing people using their mobile phones as beacons to give their exact location. It does not require collaboration with the missing person to be able to locate them. It requires no collaboration of the service providers at any point in the process and is not bounded by the type of network in place as it works in 2G, 3G, 4G and no signal areas. It also has the ability to act as

a communication relay between the missing person and the rescue team," says the company.

<https://dronelife.com/2020/05/18/search-and-rescue-drones-finding-a-cell-phone-signal-and-a-missing-person/>

VIDEO: New VOLY M20 long-range cargo drone NEW PRODUCTS SAM LEWIS MAY 19, 2020

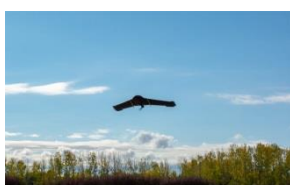


The company unveiled its new product at the United States Air Force's Agility Prime Virtual Trade Show. They showed off the autonomous UAV, which is capable of carrying 20lbs of cargo, along with a further 10lb ISR or sensor payload.

The VOLY M20 also has a **350-mile range**, hits speeds of 75mph, and promises more than eight hours of endurance for sensor operations. It utilizes a hybrid flight system that combines electric vertical takeoff and landing with a fixed-wing, "pusher"-driven forward flight mode. It can be configured with the customer's choice of heavy-fuel or gasoline engines.

Volansi CEO and co-founder, Hannan Parvizia said, "The user experience is a key pillar of this design. We incorporated all the feedback we received from our customers on the need for an easy to use, maintain, and operate aircraft that is capable of operating on both land and at sea." https://www.commercialdroneprofessional.com/video-new-voly-m20-long-range-cargo-drone/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329716-Commercial+Drone+Professional+DNA+-+2020-05-19

Woolpert scores drone image-collection contract in Colorado APPLICATION DRONES AT WORK SAM LEWIS MAY 19, 2020



Architecture, engineering, geospatial and strategic consulting firm Woolpert has begun using the SenseFly eBee X for a new design survey contract. This fixed-wing system allows for extended flight times and is equipped with real-time kinematic technology which, paired with



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ground control point data, produces an accurate topographic base map and orthorectified imagery.

Felsburg Holt & Ullevig has contracted with Woolpert to collect imagery for a new frontage road adjacent to I-25 in Castle Rock, Colorado. It will complete right-of-way and design surveys with the help of the Colorado Department of Transport.

Woolpert has conducted numerous UAS projects across the country with clients such as the Federal Aviation Administration, the US Department of Defense, airports, mining companies and several state departments of transportation.

Woolpert project manager Chris Raml said: "This is a unique opportunity to introduce new technology to the town with a proven survey team. Using UAS will save time and money, and offer a superior, visual deliverable." https://www.commercialdroneprofessional.com/woolpert-scores-drone-image-collection-contract-in-colorado/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329716-Commercial+Drone+Professional+DNA+-+2020-05-19

Autonomous surveillance drones are flying above Singapore Josh Spires May. 19th 2020



Autonomous [surveillance drones](#) are currently being tested by the [Singapore](#) Police Force to prevent break-ins and theft while many businesses are left abandoned for now. The drones have been flying as part of a trial since the end of April.

They are being tested in the industrial area of Western Singapore. This location has been chosen as a majority of the businesses have closed, giving thieves more of a reason to break in and steal equipment.

The drones are capable of flying for 30 minutes with a radius of a few hundred meters and are equipped with high definition zoom cameras that can be viewed remotely via a tablet in real-time. The agency behind the trial, Home Team Science and Technology Agency Robotics, is also looking into delivering defibrillators to the scene of a cardiac arrest.

The drones are a part of a trial to collect technical data on flying drones through urban areas to ensure they are confident before rolling out the program to other areas in Singapore.

<https://dronedj.com/2020/05/19/autonomous-surveillance-drones-flying-above-singapore/>



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Texas personal injury firm uses drones for accident investigation and reconstruction

INNOVATION SAM LEWIS MAY 20, 2020



Texas personal injury firm Witherite has begun utilizing drone technology from company Midwest UAS. This can provide juries and insurance companies with a greater insight into how the collision occurred. The company said drone technology will deliver convincing, accurate, measurable and near real-time aerial maps, video, and images that reflect conditions at the time of the accident.

Founding partner and commercial truck accident lawyer, Amy Witherite, stated: “When we talk about why expertise matters in car and truck wrecks, this is what we mean. Jackie Reiser and her drone team at Midwest UAS will enable us to extend, enhance and grow our accident investigation expertise through technology.” https://www.commercialdroneprofessional.com/texas-personal-injury-firm-uses-drones-for-road-traffic-accident-investigation-and-reconstruction/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329794-Commercial+Drone+Professional+DNA+-+2020-05-20

INVOLI Launches Sales of KIVU – The First Remote Identification Drone Tracker

PRESS 2020-05-19



Lausanne, Switzerland: In its vision to enable a sky where drones safely fly alongside manned aviation, [INVOLI](#) launches sales of the first Remote Identification compatible drone tracker: KIVU.

At only 22 grams, it is the lightest drone tracker on the market, it has 2 hours of battery autonomy and it is self-sufficient with an embedded chargeable battery. KIVU users will be able to visualize at the same time the tracked drone and surrounding air traffic, while benefitting from geofencing around the drone, analytics tools and actionable insights.

KIVU is the **first** drone tracker on the market to comply with the **Remote ID standard** created by ASTM. KIVU will act like a “license plate” of the drone in the sky, broadcasting its unique ID and GPS position to others and allowing compliance with European Laws which require transmission of this information during the whole flight. https://www.uavexpertnews.com/2020/05/involi-launches-sales-of-kivu/?utm_source=Master&utm_campaign=d6bffa679a-



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EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-d6bffa679a-89168288

Unmanned Leadership Forum Soars: Drone Experts Talk Regulations, Business, and Covid-19

Harry McNabb May 20, 2020



The first [Unmanned Leadership Forum](#) took place yesterday. Over a dozen unmanned experts spoke to a **global audience of over 300 people** about topics that included Covid 19, drone company financing, Chinese based air-frames and components, and FAA regulations. In the absence of many of the drone meetings originally scheduled for this spring, the virtual opportunity to ask questions of drone industry leaders and engage in conversation was a welcome event. The entire two hours is worth listening to, but here are some of the highlights.

Dan Burton of Dronebase said that Covid-19 presents a **breakout moment** for drone technology, as unmanned systems by their nature provide remote services that require less human interaction. [DJI](#)'s Romeo Durscher spoke to the fact that there are two segments to the drone industry. "The consumer side has been affected, as people have not been able to go out and fly drones. Enterprise results have been mixed: "Many companies are taking advantage of drone technologies.... but the pandemic has taken its toll on the industry."

FLIR's Brett Kanda mentioned that there have been a flurry of great ideas and new uses for drones, including **temperature monitoring sensors** and an accelerated path for drone delivery. DJI's Brendan Shulman responded to questions on how DJI has been "swept into a political moment," saying that targeting drone companies based on country of origin **stifles global innovation** – and does no benefit to anyone in the drone industry.

The Unmanned Leadership Forum resides on Facebook at [Unmanned Underground](#): while it's just getting started, they boast over **1,000 members** and are growing fast. Check out the group to listen to the recording if you missed the event. <https://dronelife.com/2020/05/20/unmanned-leadership-forum-soars-drone-experts-talk-regulations-business-and-covid-19/>



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Automated Security Drones: Airobotics Takes Flight over Singapore Miriam

McNabb May 20, 2020



In the current pandemic, [automated security drones to enforce restrictions](#) against crowds and social distancing regulations are taking their place in law enforcement applications. Now, automated industrial drone startup [Airobotics](#) has received the [world's first approval](#) to fly over a major metropolis with an agreement to fly over Singapore.

"As part of Singapore's response to protect the public's health during the coronavirus crisis, The Home Team Science & Technology Agency (HTX) of Singapore, has partnered with Airobotics, through its local partner, SJ Defence."

"HTX, a statutory board of the Ministry of Home Affairs, is using drone technology to augment Singapore Police Force's (SPF) efforts in policing during this period to fly above a major industrial estate area to track anomalies such as congregations of people. The technology complements police operations by using real-time aerial data to accelerate the feedback process and help the SPF make better informed decisions.

"We are proud to work with HTX to mitigate the spread of COVID-19," said Ran Krauss, CEO and Co-Founder of Airobotics. "What started off as a vision has now become a reality."

<https://dronelife.com/2020/05/20/automated-security-drones-airobotics-takes-flight-over-singapore/>

Drone Mapping Firm Leverages Artificial Intelligence for Counting and Weed Detection MAY 20, 2020 Pierrick Poulenas



A screenshot from the Picterra platform. Thanks to the yellow training areas and a small number of annotations, the machine learning model learns what is shattercane and what isn't.

Eagle Eye Imaging LLC opened its doors in Woodbine, Maryland with the goal of using Unmanned Aerial Vehicles to provide local growers with faster and more affordable answers to many of their most common field condition questions.

Eagle Eye Imaging purchased the Smarter Farming Package from DJI. The package included the Matrice 100 quadcopter, Precision Hawk DataMapper software and two digital imaging



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cameras – one capturing data in the visible (Red Green Blue) spectrum and the other in the Near Infrared.

For a typical flight to map crop stress in corn fields, the firm flies at an altitude of 250-300 feet capturing imagery at 1.5-inch resolution. From these images, Normalized Difference Vegetation Index (NDVI) maps are generated. In shades of red, NDVI differentiates healthy crops from stressed ones. In a matter of minutes, Kivioja can analyze the colorized maps manually to create a report giving precise latitude-longitude coordinates for stressed conditions.

https://www.commercialuavnews.com/forestry/drone-mapping-firm-leverages-artificial-intelligence-to-provide-commercial-crop-counting-and-weed-detection-services?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiWVRBM1pUazFPR1UwTIRNMSIsInQiOiJMbJGV0MxNzBLN2Jzc0dZZ0VzUGJsa0dn eVJVeStiQkk2ZExoVWdvaVUzaFpBMkRDUTJYYUpFSmtDZitxYUg3TG84dVNySXBkMGZleUJRTIFhbHFOQlg1bWxXN2kyQmR2QlkzU1IzVUNwVlQ2WjlpUllzd2d5Vno2SGx1Y3JjWSJ9

Drones Delivering AEDs in Sweden as Part of Clinical Study INSIDE UNMANNED SYSTEMS MAY 19, 2020



Beginning in June, drones will deliver Automated External Defibrillators (AEDs) to help save cardiac arrest victims in Sweden, allowing bystanders to use the life-saving device before medical professionals arrive.

Everdrone recently announced its drone system will be part of the clinical trial, which will run through September. Put together in collaboration with Sweden's national emergency call center, SOS Alarm and the Centre for Resuscitation Science at Karolinska Institutet, the trial will serve more than 80,000 residents in the Gothenburg area of Sweden.

As part of the study, three drone systems will be placed in designated locations and will respond to emergency calls within a 6 km radius. A drone will be dispatched at the same time as the ambulance, enabling it to arrive at the scene first. The AED will be lowered to the ground while the drone hovers at 30 meters, eliminating the risk that comes with landing a drone close to people. Operators will then instruct bystanders on how to use the AED.

https://insideunmannedsystems.com/drones-delivering-aeds-in-sweden-as-part-of-clinical-study/?mkt_tok=eyJpIjoiWVRBM1pUazFPR1UwTIRNMSIsInQiOiJMbJGV0MxNzBLN2Jzc0dZZ0VzUGJsa0 dneVJVeStiQkk2ZExoVWdvaVUzaFpBMkRDUTJYYUpFSmtDZitxYUg3TG84dVNySXBkMGZleUJRTIFhbHFOQlg1bWxXN2kyQmR2QlkzU1IzVUNwVlQ2WjlpUllzd2d5Vno2SGx1Y3JjWSJ9



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Sony updates Smart Agriculture Solution, adds online training academy and webinars SAM LEWIS MAY 21, 2020



It has also added an online training academy, with a library of training videos, as well as announcing that it will host webinars.

The Smart Agriculture Solution launched in 2019. It is comprised of a drone-mounted multispectral sensing unit and Fast Field Analyzer image analytics software for in-the-field crop management,

monitoring and insights.

Sony said that its regular software updates ensure the product continues to evolve by expanding its capabilities and functionality. Version 2.1, enables native prescription creation which provides additional information to users and supports end-to-end workflow. This advancement allows users to use the latest information from the field to make quick and informed in-season nitrogen and pesticide application decisions. The update also improves the system's compatibility with additional drone models.

Meanwhile, the online training academy includes on-demand videos on topics like field installation and preparation, on-site flight operation, and data capture and processing. Its webinars will be archived after they air live, and include titles such as 'Optimize Nitrogen Application Rates by Peterson Farms Seed'. They take place every Wednesday.

https://www.commercialdroneprofessional.com/sony-updates-smart-agriculture-solution-adds-online-training-academy-and-webinars/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329887-Commercial+Drone+Professional+DNA+-+2020-05-21

Fortem reaches phase two of US Army's xTechSearch 5 program INNOVATION MILITARY SAM LEWIS MAY 21, 2020



The xTechSearch 5 competition sees technology companies pitted against one another, all vying for a contract with the US Army.

The contract will see the successful companies collaborate with the Army in tackling challenges to national security, defense and public safety, using innovative technologies developed within the private



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sector. Fortem specialises in counter-drone solutions. Its F700 DroneHunter is an autonomous interceptor drone equipped with the ability to deliver radio frequency and directed energy weapons countermeasures to small unmanned aircraft systems.

Meanwhile, the xTechSearch competitions were launched in 2018 and are sponsored by the Assistant Secretary of the Army for Acquisition, Logistics, and Technology.

Fortem believes the DroneHunter 700's past successes will stand it in good stead during the competition.

These include being tested by NATO and the US Department of Defense as well as a \$10 million contract with an undisclosed foreign police force.

https://www.commercialdroneprofessional.com/fortem-reaches-phase-two-of-us-armys-xtechsearch-5-programme/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329887-Commercial+Drone+Professional+DNA+-+2020-05-21

Airobotics receives “world’s first” approval to fly automated commercial drones above major metropolis

APPLICATION INTERNATIONAL NEWS ALEX DOUGLAS MAY 21, 2020



As part of Singapore's response to protect the public's health during the coronavirus crisis, The Home Team Science & Technology Agency has partnered with Airobotics, through its local partner, SJ Defense, the defense arm of Surbana Jurong Group.

HTX, a statutory board of the Ministry of Home Affairs, is using Airobotics' drone technology to augment Singapore Police Force's efforts in policing during this period to fly above a major industrial estate area to track anomalies such as congregations of people during the Circuit Breaker Period in Singapore.

The technology complements police operations by using real-time aerial data broadcasted by Airobotics' automated drone technology to accelerate the feedback process and help the SPF make better informed decisions.

As a **completely automatic** unmanned aerial system, Airobotics explained how it is the first of its kind in the global market. https://www.commercialdroneprofessional.com/airobotics-receives-worlds-first-approval-to-fly-automated-commercial-drones-above-major-metropolis/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-329887-Commercial+Drone+Professional+DNA+-+2020-05-21



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COMMERCIAL UAV EXPO EUROPE 2020 SHIFTS TO VIRTUAL EVENT May 19, 2020



Amsterdam, The Netherlands – Commercial UAV Expo Europe 2020 is going virtual, according to event organizer Diversified Communications. “Due to ongoing concerns caused by the COVID-19 pandemic and for the health and safety of the members of the commercial drone community, we have made the decision to reimagine Commercial UAV Expo Europe as a fully virtual event this year which will take place as part of a hybrid live-virtual Amsterdam Drone Week 1-3 December, 2020,” said Lisa Murray, Group Director at Diversified Communications, organizer of Commercial UAV Expo Europe.

Details will be forthcoming, but the content will include keynotes, panel discussions and presentations with interactive Q&A and chat features; an AI-powered networking component; and virtual exhibits, presentations and demonstrations by UAS solutions providers. “Our customers have told us there is an urgent need to connect, even if it’s in a different format than they are accustomed to. The content will address how the industry has responded to the pandemic, as well as the associated opportunities and challenges.

Precise details will be forthcoming, but commercial drone solutions providers will have the opportunity to host virtual exhibits, conduct one-on-one meetings, provide product information, share videos —all virtually. “We expect that most if not all of the companies that had already committed to exhibiting at the live event will participate virtually,” said Ms. Murray. “They are looking forward to the opportunity to connect with qualified professionals and generate leads in this new way.” https://www.expouav.com/europe/commercial-uav-expo-europe-2020-shifts-to-virtual-event-as-part-of-hybrid-amsterdam-drone-week/?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTTJFd09HVmxOemRtTldReilsInQiOiJIR0hJNDJTbk16Ymx2ZGhjOFwvbFo0Q0RIYjZweGtodjBPTIVIT3JxK0owcWN6eTVHT1NWS0VjN1IUVnEwbXhEM2VQazhISEhURHh1Mzk5XC9CcFpVzRJZ05sMnQ2OFdnbmtpRDJYRWWhjTUdUSUZ4MWhFQVh1ZzQzdUhCeVZsQUdrln0%3D

Lots of drones are flying illegally around airports Sean Captain May. 21st 2020



No place is more dangerous for a drone to fly than near airports. Not only are the skies crowded, but aircraft may take off or land at low altitudes within the 400-foot ceiling drones are supposed to fly under.

The FAA has very strict rules governing flight around airports.



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But a new study indicates that a lot of drone pilots are not following the rules and sometimes egregiously flaunting them.

The data come from a [study](#) by Embry-Riddle Aeronautical University of drone traffic around the Daytona Beach International Airport in Florida. Researchers were able to identify the majority of drone flights in the area by intercepting their radio signals. They then compared this to an FAA database of drones that had received permission to operate around the airport.

Over a 30-day period in August and September 2019, researchers identified 271 flights using a device called AeroScope, which tracks the unencrypted signals used by DJI drones. Researchers tried to correlate these flights with data from an FAA system called Low Altitude Authorization and Notification Capability, or [LAANC](#). During the study period, the FAA granted just 94 LAANC approvals, versus the 271 flights detected.

The study collected a lot of data on how drones were flying, including their altitude. Forty-one were operating above 500 feet, which isn't allowed anywhere in the US. Thirty-two of those were between 500 and 1,000 feet. Six were between 1,000 and 1,500 feet, and three flights were above 1,500 feet. <https://dronedj.com/2020/05/21/lots-of-drones-are-flying-illegally-around-airports/#more-29128>

Rogue drone shuts down Air Force base Sean Captain May. 21st 2020



According to an Air Force statement, one of its T-38 fighter jet pilots spotted the drone flying at about **1,500 feet**. The two craft flew within about 1000 feet of each other. After it was reported, about 2PM, the base shut down T-38 flights for nearly two hours.

“[M]ultiple training opportunities in the pattern were lost (practice landings and emergency patterns) due to this drone,” read the statement.

Local police were dispatched to locate the drone but had no luck finding it or the pilot.

The drone doesn't appear to have been flying over Vance Air Force Base. Instead it was flying over a local high school in the town of Enid. But this area is in the flight path—something the pilot could have easily determined online, if not through simple intuition of seeing planes flying overhead. <https://dronedj.com/2020/05/21/rogue-drone-shuts-down-air-force-base/#more-29123>



UAS and SmallSat Weekly News

Colombia drones seek out people with fever Sean Captain May. 20th 2020



Police in Bogota re deploying drones to monitor public places for anyone who may be running a fever. (They also look for crowds breaking stay at-home orders.) If the drone spots someone with a potentially high temperature, authorities dispatch a medical team to check for coronavirus symptoms.

The Colombia drones monitor only temperatures and groupings of people in public places, say the police. The drones are not able to monitor people in their homes. Still, it's a very intense form of scrutiny, and possibly not that accurate. But Bogota officials feel they have to do something to get a handle on the pandemic.

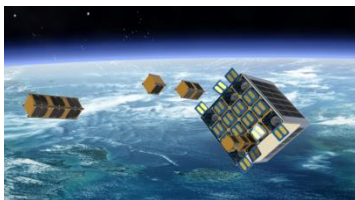
The city is home to about a third of the country's nearly 17,000 confirmed coronavirus cases. While some parts of the country have begun reopening, Bogota's mayor has placed a dozen areas of the capital with high infection rates under special restrictions.

"Without a doubt the use of these technologies from the national police has been very useful in these areas," said Julian Moreno, the district mayor for the city's Suba district, which with 1.4 million residents, has the second-highest infection rate in the city.

<https://dronedj.com/2020/05/20/colombia-drones-seek-out-people-with-fever/#more-29037>

22May20

D-Orbit preps for in-orbit transportation business with Arianespace and SpaceX launches Caleb Henry May 21, 2020



WASHINGTON — Italian space company D-Orbit will launch its first cubesat deployer in June on an Arianespace Vega, paving the way for an upgraded deployer in December on a SpaceX Falcon 9 capable of **in-space maneuvers**, a company official said May 21.

Bruno Carvalho, D-Orbit's vice president of business development, said the company hopes to launch one of its InOrbit Now (ION) propulsive cubesat deployers every two to three months after proving out the system and lining up customers. The first deployer will release into a single orbit 12 Doves for Earth-observation company Planet. The next ION will be bigger, featuring a "very capable propulsion system" that can move satellites to different orbits and altitudes, he said.



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Carvalho, speaking during a webinar hosted by the Access Space Alliance May 21, said propulsive ION deployers will be able to ferry satellites around in low Earth orbit or carry them up to medium Earth orbit.

Future ION deployers will also have the ability to host payloads, relay communications to the ground, and retrieve satellites to deorbit them. ION is designed for **cubesats** from three to 12 units in size. <https://spacenews.com/d-orbit-preps-for-in-orbit-transportation-business-with-upcoming-arianespace-and-spacex-launches/>

Flash Forest Drones to Plant 40,000 Trees a Month in Canada May 21, 2020 News



This week, on land north of Toronto that previously burned in a wildfire, drones are hovering over fields and firing seed pods into the ground, planting native pine and spruce trees to help restore habitat for birds. [Flash Forest](#), the Canadian startup behind the project, plans to use its technology to plant 40,000 trees in the area this month. By the end of the year, as it expands to other regions, it will plant hundreds of thousands of trees. By 2028, the startup aims to have planted a full **1 billion trees**.

The Intergovernmental Panel on Climate Change says that it's necessary to plant 1 billion hectares of trees—a forest roughly the size of the entire United States—to limit global warming to 1.5 degrees Celsius. Existing forests need to be protected while new trees are planted; right now, that isn't working well.

Drones don't address deforestation, which is arguably an even more critical issue than planting trees, since older trees can store much more carbon. But to restore forests that have already been lost, the drones can work more quickly and cheaply than humans planting with shovels. Flash Forest's tech can currently plant 10,000 to 20,000 seed pods a day; as the technology advances, a pair of pilots will be able to **plant 100,000 trees in a day** (by hand, someone might typically be able to plant around **1,500 trees** in a day, Ahlstrom says.) The company aims to bring the cost down to 50 cents per tree, or around a fourth of the cost of some other tree restoration efforts. https://uasweekly.com/2020/05/21/flash-forest-drones-to-plant-40000-trees-a-month-in-canada/?utm_source=rss&utm_medium=rss&utm_campaign=flash-forest-drones-to-plant-40000-trees-a-month-in-canada&utm_term=2020-05-21



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DroneShield Chosen by the European Union Police May 21, 2020 Counter UAS



DroneShield Ltd is pleased to advise that, following a competitive tender, its DroneGun Tactical™ product was selected as the preferred solution by the European Union police forces. The process was run by Belgium Police, with an EU-wide framework.

Under the framework agreement, DroneGun Tactical™ is expected to be rolled out across a range of police units across the European Union. While the agreement does not specify minimum purchase quantities, DroneShield expects this agreement to produce periodic sales over an extended period of time with orders commencing this quarter.

Oleg Vornik, DroneShield's CEO, commented, "This is the first rollout of counterdrone equipment by any Government customer, **anywhere in the world**. In addition to the substantial nature of this contract, we expect for this to set a standard for DroneGun Tactical™ procurement by other Government customers in the EU and globally. This selection by a highly demanding customer, following the UK Government certification last year, reinforces the position of our products in the industry."

https://uasweekly.com/2020/05/21/dronesield-chosen-by-the-european-union-police/?utm_source=rss&utm_medium=rss&utm_campaign=dronesield-chosen-by-the-european-union-police&utm_term=2020-05-21